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09/932,140	08/17/2001	Brian Eric Bakke	IBM / 178	5139

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EXAMINER

MANOSKEY, JOSEPH D

ART UNIT PAPER NUMBER

2113

DATE MAILED: 09/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/932,140

Applicant(s)

BAKKE ET AL.

Examiner

Joseph Manoskey

Art Unit

2113

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 July 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 July 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-8, 12-21, and 25-30 are rejected under 35 U.S.C. 102(b) as being anticipated by Duso et al., U.S. Patent 5,987,621, hereinafter referred to as "Duso".

3. Referring to claim 1, Duso teaches an apparatus with a plurality of stream servers, which is interpreted as access adapters, that are configured to access an electronic resource for the hosts on the network (See Fig. 1 and 2, and Col. 2, lines 30-48). Duso also teaches one or more stream servers being kept in standby mode to be used as "hot spares" for any one of the other stream servers, this is interpreted as being "shareable" (See Col. 10, lines 23-28). Finally Duso teaches the apparatus in having two control servers, this is interpreted as control circuitry (See Fig. 2). The control server performs a stream server failover task (See Col. 4, lines 1-6).

4. Referring to claims 2, 3, and 5, Duso teaches the control server monitoring a heartbeat signal, or "event", from the stream servers to determine if a failover task should be performed (See Col. 4, lines 1-10).

5. Referring to claim 4, Duso discloses the control server having a client control failover mode where the control server informs the client of the stream server failure, which is interpreted as a notification (See Col. 4, lines 17-19).

6. Referring to claim 6, Duso teaches the apparatus having two control servers that where one is inactive and monitors a signal sent to it from the active control server. In the event the signal stops and the control server becomes inoperative a failover mechanism is used to start the inactive control server (See Col. 3, lines 30-60). This is interpreted as the control circuitry monitoring a process that monitors the event.

7. Referring to claim 7, Duso discloses the stream server, or access adapters having two ports and each port only accesses a subset of the shared resources (See Fig. 2).

8. Referring to claim 8, Duso teaches that any of the steam servers can be placed in a standby mode and be used as a "hot spare" (See Col. 10, lines 23-28). This is interpreted as reconfiguring a second adapter as a sharable spare adapter.

9. Referring to claims 12 and 14, Duso teaches the control server performing a failover task of a stream server (See Col. 4, lines 1-10). This is interpreted as the control circuitry replacing an access adapter and disabling the failed access adapter.

10. Referring to claim 13, Duso teaches that any of the steam servers can be placed in a standby mode and be used as a "hot spare" (See Col. 10, lines 23-28). This is interpreted as disabling the spare adapter.

11. Referring to claims 15 and 16, Duso discloses a method for an apparatus with a plurality of stream servers, which is interpreted as access adapters, which are configured to access an electronic resource for the hosts on the network (See Fig. 1 and 2, and Col. 2, lines 38-40). Duso also teaches one or more stream servers being kept in standby mode to be used as "hot spares" for any one of the other stream servers, this is interpreted as being "shareable" (See Col. 10, lines 23-28). Also included is a control server that performs a stream server failover task for a failed stream server (See Col. 4, lines 1-6). The hot spares can replace any stream server, which is interpreted as replacing a first, second, and even a third stream server, or access adapter.

12. Referring to claims 17 and 18, Duso teaches the control server monitoring a heartbeat signal, or "event", from the stream servers to determine if a failover task should be performed (See Col. 4, lines 1-10).

13. Referring to claim 19, Duso discloses the control server having a client control failover mode where the control server informs the client of the stream server failure, which is interpreted as a notification (See Col. 4, lines 17-19).

14. Referring to claim 20, Duso teaches the method for the apparatus having two control servers that where one is inactive and monitors a signal sent to it from the active control server. In the event the signal stops and the control server becomes inoperative a failover mechanism is used to start the inactive control server (See Col. 3, lines 30-60). This is interpreted as the control circuitry monitoring a process that monitors the event.

15. Referring to claim 21, Duso teaches that any of the steam servers can be placed in a standby mode and be used as a "hot spare" (See Col. 10, lines 23-28). This is interpreted as reconfiguring a second adapter as a sharable spare adapter.

16. Referring to claims 25 and 27, Duso teaches the control server performing a failover task of a stream server (See Col. 4, lines 1-10). This is interpreted as the control circuitry replacing an access adapter and disabling the failed access adapter.

17. Referring to claim 26, Duso teaches that any of the stream servers can be placed in a standby mode and be used as a "hot spare" (See Col. 10, lines 23-28). This is interpreted as disabling the spare adapter.

18. Referring to claim 28, Duso discloses the stream server, or access adapters having two ports and each port only accesses a subset of the shared resources (See Fig. 2).

19. Referring to claim 29, Duso discloses a program product for an apparatus with a plurality of stream servers, which is interpreted as access adapters, which are configured to access an electronic resource for hosts on the network (See Fig. 1 and 2, and Col. 2, lines 30-48). Duso also teaches one or more stream servers being kept in standby mode to be used as "hot spares" for any one of the other stream servers, this is interpreted as being "shareable" (See Col. 10, lines 23-28). Also included is a control server that performs a stream server failover task for a failed stream server (See Col. 4, lines 1-6). The hot spares can replace any stream server, which is interpreted as replacing a first, second, and even a third stream server, or access adapter. Duso discloses the controller server being programmed to perform the failover task of the stream servers, or access adapters, which is interpreted as a signal bearing media bearing the program (See Col. 4, lines 1-6).

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20. Referring to claim 30, Duso discloses the server being programmed to perform the task (See Col. 4, lines 1-6). It would be inherent for the server to run the program, it would need to be read from a recordable media, and this is interpreted as being at least one of a recordable memory or transmission type media.

Claim Rejections - 35 USC § 103

21. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

22. Claims 9-11 and 22-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Duso in view of Conseil, U.S. Patent 5,964,887.

23. Referring to claims 9 and 22, Duso teaches all the limitations (See rejection of claims 1 and 15 respectively) except for removal of a correlation token from the access adapter, however Duso does teach re-routing the data stream from a failed stream server, access adapter, to a spare stream server in a transparent mode, this is interpreted as passing the identity of the of the failed server to the spare server (See Col. 4, lines 15-17). Conseil teaches a system where a failed active station is switched over to a back-up station (See Col. 1, lines 15-18). Conseil discloses this being done with an identifier or "token" (See Col. 1, lines 46-49). It would be obvious to on of

ordinary skill in the art at the time of the invention to combine the token passing of Conseil with the failover of stream servers of Duso. This would be obvious to one of ordinary skill in the art at the time of the invention to do because provides transparent manner of switch to a back-up (See Conseil, Col. 1, lines 26-30).

24. Referring to claims 10 and 23, Duso and Conseil teach all the limitations (See rejection of claims 9 and 22 respectively) including passing the token to the spare or back-up adapter. Conseil teaches using the token to pass the identity to the back-up, this is interpreted as passing the token to the spare adapter (See Col. 1, lines 15-17 and 46-49).

25. Referring to claims 11 and 24, Duso and Conseil teach all the limitations (See rejection of claims 9 and 22 respectively) including the evaluation of the correlation token. Conseil discloses a station becoming operational if it is determined if the token is present, this is interpreted as evaluating the token (See Col. 1, lines 65-67).

Response to Arguments

26. Applicant's arguments, see page 9 of the Amendment filed on 12 July 2004, with respect to the drawings have been fully considered and are persuasive. The objections of the drawings have been withdrawn.

27. Applicant's arguments, see page 9 and 11 of the Amendment filed on 12 July 2004, with respect to claim 29 have been fully considered and are persuasive. The 35 U.S.C. 101 rejection of claim 29 has been withdrawn.

28. Applicant's arguments filed 12 July 2004 concerning the 35 U.S.C. 102(b) and 35 U.S.C. 103(a) rejections of the claims have been fully considered but they are not persuasive. The previous rejections have been maintained, see above. The applicant's arguments are that the stream servers of Duso cannot be interpreted as the shareable access adapters. The examiner respectfully disagrees. The servers provide access to hosts on the network to the data on the disk array storage subsystem, thus they act as access adapters between the network interface and the disk array interface (See Duso, Col. 2, lines 30-48). The above rejections have been modified to include this clarification.

The applicant also makes mention of the Duso patent concerning the inclusion of SCSI adapters. The applicant argues that the existence of these prevent the interpretation of the servers as adapters. The examiner respectfully disagrees. The SCSI adapters provide an additional level of adapters that provide the access for the servers to the individual disks of the disk array, in much the way the servers provide access for the hosts on the network access to the disk arrays as a whole.

Conclusion

29. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph Manoskey whose telephone number is (703) 308-5466. After approximately October 13, the examiner can be reached at the new Alexandria telephone number, (571) 272-3648. The examiner can normally be reached on Mon.-Fri. (8am to 4:30pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Beausoliel can be reached on (703) 305-9713. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JDM
September 21, 2004


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